

wherein R¹ is a hydrogen atom or a hydrocarbon group containing 1 to 20 carbon atoms.

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53. (Amended) The process according to Claim 52, wherein the polymer (I) is produced by using an allyl halide as an initiator.

REMARKS

Claims 33-62 are now in the application. Claim 33 has been amended by reciting --A process for producing an AB block copolymer, an ABA block copolymer or a multiblock copolymer—in place of "A process for producing a block copolymer" for purposes of clarification as supported on page 55, lines 16-19 of the specification. Claim 34 has been amended by changing "The polymer" in the 1st line to read --The process-- to correct an inadvertent typographical error. Claim 53 has been by changing "multiblock copolymer" to read --process-- to correct an inadvertent typographical error.

Claims 33-35, 37-53, 56 and 62 were rejected under 35 USC 102(e) as being anticipated over Matyjaszewski et al. Claim 36 was rejected under 35 USC 103(a) as being unpatentable over Matyjaszewski et al. Matyjaszewski et al. do not anticipate and do not render obvious the present invention.

The process of the instant invention as recited in claim 33 comprises adding an alkenyl-containing polymer (I) to a living radical polymerization system or a living cationic polymerization system.

On the other hand, Matyjaszewski et al do not disclose a process that comprises adding an alkenyl-containing polymer (I) to a living radical polymerization system or a living cationic polymerization system.

Matyjaszewski merely suggests a process for producing a hyperbranched polymer (column 20, line 51 and scheme 5), a branched polymer (column 22, line 52 and scheme 6), a multi-arm polymer (column 23, line 36) and a combination polymer (column 23, line 51), comprising adding an alkenyl-containing polymer to a living radical polymerization.

Although Matyjaszewski suggests a process for producing a diblock, triblock or multiblock copolymer in schemes 3 and 4, these processes do not require addition of an alkenyl-containing polymer to a living radical polymerization. All the polymers PSt-Cl, Cl-PIB-Cl and Cl-St-PIB-St-Cl as initiating polymers in scheme 3 have a chlorine atom, but no alkenyl groups. The pre-polymer in scheme 4 contains X3, i.e. halogen, but no alkenyl groups.

Therefore, Matyjaszewski does not disclose a process for producing an AB block (diblock) copolymer, an ABA block (triblock) copolymer or a multiblock copolymer, comprising adding an alkenyl-containing polymer to a living radical polymerization, as recited in amended claim 33.

A skilled person in the art would not have been lead to prepare an AB block (diblock) copolymer, an ABA block (triblock) copolymer or a multiblock copolymer by adding an alkenyl-containing polymer to a living radical polymerization, based on the disclosure of Matyjaszewski, because Matyjaszewski does not specifically disclose such a process at all.

Concerning the rejection under 35 USC 102, Matyjaszewski et al do not anticipate the present invention. In particular, anticipation requires the disclosure, in a prior art reference, of each and every recitation as set forth in the claims. See *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985), *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 USPQ2d 1081 (Fed. Cir. 1986), and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 USPQ2d 1241 (Fed. Cir. 1986).

There must be no difference between the claimed invention and reference disclosure for an anticipation rejection under 35 USC 102. See *Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 USPQ2d 1001 (CAFC 1991) and *Studiengesellschaft Kohle GmbH v. Dart Industries*, 220 USPQ 841 (CAFC 1984).

Also, the cited art lacks the necessary direction or incentive to those or ordinary skill in the art to render under 35 USC 103 sustainable. The cited art fails to provide the degree of predictability of success of achieving the properties attainable by the

present invention needed to sustain a rejection under 35 USC 103. See *Diversitech Corp. v. Century Steps, Inc.* 7 USPQ2d 1315 (Fed. Cir. 1988), *In re Mercier*, 185 USPQ 774 (CCPA 1975) and *In re Naylor*, 152 USPQ 106 (CCPA 1966).

Moreover, the properties of the subject matter and improvements which are inherent in the claimed subject matter and disclosed in the specification are to be considered when evaluating the question of obviousness under 35 USC 103. See *Gillette Co. v. S.C. Johnson & Son, Inc.*, 16 USPQ2d. 1923 (Fed. Cir. 1990), *In re Antonie*, 195, USPQ 6 (CCPA 1977), *In re Estes*, 164 USPQ (CCPA 1970), and *In re Papesch*, 137 USPQ 43 (CCPA 1963).

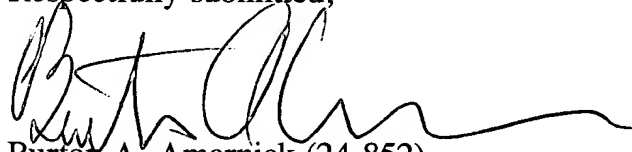
No property can be ignored in determining patentability and comparing the claimed invention to the cited art. Along these lines, see *In re Papesch*, supra, *In re Burt et al*, 148 USPQ 548 (CCPA 1966), *In re Ward*, 141 USPQ 227 (CCPA 1964), and *In re Cescon*, 177 USPQ 264 (CCPA 1973).

In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185.

Respectfully submitted,



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APPENDIX – MARKED UP VERSION

33. (Amended) A process for producing [a] an AB block copolymer, an ABA block copolymer or a mutiblock copolymer

which comprises adding an alkenyl-containing polymer (I) to a living radical polymerization system or a living cationic polymerization system.

34. (Amended) The [polymer] process according to Claim 33, wherein the alkenyl group in said polymer (I) is represented by the general formula 1:



wherein R^1 is a hydrogen atom or a hydrocarbon group containing 1 to 20 carbon atoms.

53. (Amended) The [multiblock copolymer] process according to Claim 52, wherein the polymer (I) is produced by using an allyl halide as an initiator.

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JUL 16 2002
GROUP 1700